

Harper County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

5/24/2016

Using the most recent IMPLAN data available (2014) adjusted for 2016, 17 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Harper County economy.¹

These 17 sectors have a total direct output of approximately **\$155.7 million** and support **564.1 jobs** in Harper County. Running the model for all 17 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Economy						
Impact Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵	Output % of Gross Regional Product
Direct Effect	564.1	12.46%	\$63,500,392.58	22.25%	\$155,677,468.64	54.56%
Indirect Effect	101.9	2.25%	\$6,738,759.00	2.36%	\$14,573,939.58	5.11%
Induced Effect	78.4	1.73%	\$4,615,356.90	1.62%	\$8,979,365.25	3.15%
Total Effect	744.4	16.44%	\$74,854,508.48	26.23%	\$179,230,773.46	62.81%

As shown in the above table, agriculture, food, and food processing sectors support **744.4 jobs**, or **16.44%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$179.2 million**, roughly **62.81% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 17 agriculture, food, and food processing sectors is approximately **\$74.9 million**, or **26.23% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **26.23% of the total economy**.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **389.9 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Harper County.

Top Ten Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	389.9	\$74,423,087.92
Grain farming	58.3	\$36,023,766.82
Farm machinery and equipment manufacturing	42.5	\$24,666,108.12
Animal production, except cattle and poultry and eggs	26.7	\$4,830,368.51
Wholesale trade	26.0	\$4,953,176.25
All other crop farming	17.8	\$2,321,841.08
Real estate	15.0	\$1,425,368.08
Dairy cattle and milk production	13.5	\$7,703,382.48
Truck transportation	11.7	\$2,284,866.74
Full-service restaurants	8.3	\$293,326.45

The beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector directly contributes approximately **\$74.4 million** to the Harper County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Sectors by Output		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	389.9	\$74,423,087.92
Grain farming	58.3	\$36,023,766.82
Farm machinery and equipment manufacturing	42.5	\$24,666,108.12
Dairy cattle and milk production	13.5	\$7,703,382.48
Wholesale trade	26.0	\$4,953,176.25
Animal production, except cattle and poultry and eggs	26.7	\$4,830,368.51
Oilseed farming	1.7	\$3,237,737.05
All other crop farming	17.8	\$2,321,841.08
Truck transportation	11.7	\$2,284,866.74
Owner-occupied dwellings	0.0	\$2,202,176.05

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Harper County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	1.7	\$3,237,737.05
Grain farming	58.3	\$36,023,766.82
Vegetable and melon farming	0.0	\$10,734.10
Fruit farming	0.1	\$15,260.72
Tree nut farming	0.0	\$1,977.06
Greenhouse, nursery, and floriculture production	2.9	\$670,392.66
Cotton farming	1.4	\$498,586.37
All other crop farming	17.8	\$2,321,841.08
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	389.9	\$74,423,087.92
Dairy cattle and milk production	13.5	\$7,703,382.48
Poultry and egg production	0.2	\$240,966.17
Animal production, except cattle and poultry and eggs	26.7	\$4,830,368.51
Bread and bakery product, except frozen, manufacturing	3.4	\$416,289.28
Frozen cakes and other pastries manufacturing	0.2	\$28,381.60
Sawmills	0.5	\$249,624.07
Farm machinery and equipment manufacturing	42.5	\$24,666,108.12
Veterinary services	5.2	\$338,964.63

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Harper County, the retail sector was omitted.